

Date: Friday, 02/05/2008 10:45:22 AM
 User: Julie Lecocq

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : BK117 SKIDTUBE ASSEMBLY
Job Number : 38985	
Estimate Number : 12899	
P.O. Number :	Part Number : D117762011
This Issue : 02/05/2008 S.O. No. :	Drawing Number : N/A PRELIM
Prsht Rev. : NC	Project Number : N/A
First Issue : / / Type : SKIDTUBES	Drawing Revision : A PRELIM
Previous Run : 38984	Material :
Written By :	Due Date : 20/05/2008 Qty: 1 Um: Each
Checked & Approved By : <u>JLD 08.5.02</u>	
Comment : Est Rev:A 07.06.11 New Issue EC Est Rev:B 08-02-22 change to revA DD verified by:	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	DC	DOCUMENT CONTROL
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JLD 08.6.26 white label only



Paperwork + STC
08.06.27

Comment: DOCUMENT CONTROL

Photocopy. bluefile & type labels per PPP D117-762-011 CHG001

08.06.27
08.06.27

2.0	38985A	BK117 SKIDTUBE ASSEMBLY
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**Comment:** Sub-Component BK117 SKIDTUBE ASSEMBLYBatch: 38985A

08.06.27
08.06.27

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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**Comment:** PACKAGING RESOURCE #1

Pick Packing Kit

4.0	D35121	Wearplate
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**Comment:** Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

WEARPLATE

Batch: 39020

08.06.27
08.06.27

5.0	AN960JD10L	Washer
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**Comment:** Qty.: 8.0000 Each(s)/Unit Total: 8.0000 Each(s)

Washer

Batch: M64885

08.06.27
08.06.27

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☐ No ☒ DQA: ☒ Date: 28/06/26
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 02/05/2008 10:45:22 AM
User: Julie Lecocq

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BK117 SKIDTUBE ASSEMBLY

Job Number: 38985

Part Number: D117762011

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

AN3C4A

BOLT



Comment: Qty.: 8.0000 Each(s)/Unit Total: 8.0000 Each(s)

BOLT

BATCH: M107737

JS 08/05/12 (X1)

7.0

AN451A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Bolt

BATCH: M107755

JS 08/05/12 (X1)

8.0

D2972

Bushing



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

Bushing

BATCH: 14103

JS 08/05/12 (X1)

9.0

MS21042L4

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Nut

BATCH: M106051

JS 08/05/12 (X1)

10.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

S 08/06/12 (X1)

11.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D117-762-011

Location:

PPP Rev:

SA-5 MEDICAL BCC
PAPERWORK

OMAF-1 08/06/12

12.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

①
D 08/06/12

Job Completion



338985A

MF 08-06-26

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 02/05/2008 10:45:47 AM
 User: Julie Lecocq

Process Sheet

Customer :	CU-DAR001 Dart Helicopters Services	Drawing Name :	BK117 SKIDTUBE ASSEMBLY
Job Number :	38985A		
Estimate Number :	12898		
P.O. Number :		Part Number :	D117762041
This Issue :	02/05/2008	S.O. No. :	
Prsht Rev. :	NC	Drawing Number :	D3582 REVA PRELIM
First Issue :	1/1	Project Number :	N/A
Previous Run :	38984A	Drawing Revision :	A PRELIM
	Type :	Material :	
	SKIDTUBES	Due Date :	20/05/2008
Written By :		Qty:	1 Um: Each
Checked & Approved By :	JUL 08.5.02		
Comment :	Est Rev:A 07.06.11 New Issue EC Prototype for engineering use only (LG0005-32910) Est Rev:B 08-02-22 change to revA as per dwg DD verified by:		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	DC	DOCUMENT CONTROL
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Comment: DOCUMENT CONTROL

Photocopy bluefile & type labels per PPP D117-762-041 CHG001

2.0	D2962150	3.540 Outer Tube, Extrud
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Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2962-150

Extrusion

628672

① 4 8-5-7

3.0	SKIDTUBES 1	SKIDTUBESS RESOURCE 1
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Comment: LANDING GEAR RESOURCE 1

1-Determine square end of tube and deburr

2-Drill #30 pilot holes using DT8678. Do not open holes.

3- Deburr holes.

7-5-7

4.0	BENDING	BENDING MACHINE - SKIDTUBES
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Comment: BENDING MACHINE

Bend tube as per program on CNC Bender and Dwg D3582. Use 5/16" locator pin on buggy "A".

AL 8-5-9

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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NOTE: Date & initial all entries

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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BK117 SKIDTUBE ASSEMBLY

Job Number: 38985A

Part Number: D117762041

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

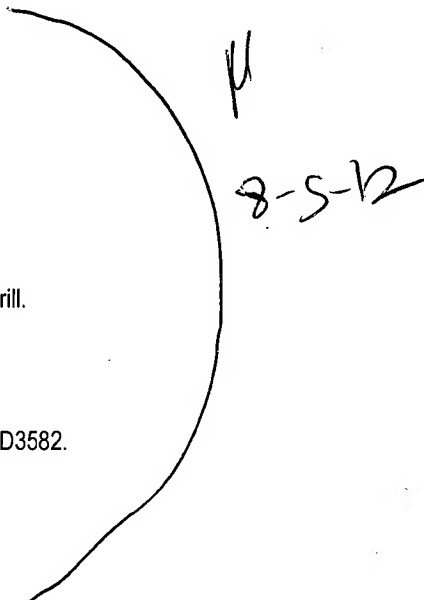
SKIDTUBES 1

SKIDTUBESS RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

- 1-Cut Fwd end of the tube using DT8185 *EL 8-5-9*
- 2-Cut Aft end at VC using DT8185
- 3-Deburr ends
- 4-Drill Aft Cap holes using DT8678 ***DO NOT OPEN AFT CAP HOLE***
- 5-Locate DT 8973 & Drill Ground wire hole on top of Tube.
- 6-Install 3/16 cleco in Ground wire hole ,then drill all X-Bolt holes using 3/16" drill.
- 7-Drill pilot holes for wearplates using DT8974
- 8-Open wearplate holes and ground wire holes to Ø19/64" (0.297") as per Dwg D3582.
- 9-Open Aft Cap holes using .209" drill.
- 10-Deburr holes.



6.0

D2964

Cap



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Cap

Batch: *214101*

BE 08/05/13

7.0

SKIDTUBES 1

SKIDTUBESS RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Weld fwd cap D2964 per dwg D3582 and QSI 004

A/R AL ROD

Batch: *M1072263*

M107877

BE 08/05/13

2-Grind flush

M 8-5-14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Date: Friday, 02/05/2008 10:45:47 AM
User: Julie Lecocq

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BK117 SKIDTUBE ASSEMBLY

Job Number: 38985A

Part Number: D117762041

Job Number:



Seq. #:

Machine Or Operation:

Description :

8.0

QC10

VISUAL INSPECTION OF GROUND WELDS



Comment: VISUAL INSPECTION OF GROUND WELDS

8 08/05/14 (X)

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

8 08/05/14 (X)

10.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

① M 8-5-14

11.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

8 08/05/14

12.0

D2971

Cross Bolt Spacer



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Cross Bolt Spacer

batch

339011

BE 08/05/21

13.0

D2973

Cross Bolt Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Cross Bolt Spacer

Batch

314636

BE 08/05/21

14.0

D36621

Crossbolt Spacer



Comment: Qty.: 3.0000 Each(s)/Unit Total : 3.0000 Each(s)

SPACER

batch

339022

BE 08/05/21

15.0

D36623

Crossbolt Spacer



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

SPACER

batch

337190

BE 08/05/21

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Date: Friday, 02/05/2008 10:45:47 AM
User: Julie Lecocq

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BK117 SKIDTUBE ASSEMBLY

Job Number: 38985A

Part Number: D117762041

Job Number:



Seq. #:

Machine Or Operation:

Description :

16.0

D35841

Web



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

WEB

B39021

①

M

8-5-14

17.0

SKIDTUBES 1

SKIDTUBESS RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Open X-Bolt holes to .750"(4Places) as per Dwg D3582, section B-B

2-Counter Sink X-BOLT holes as per Dwg D3582

3-Deburr and blow out chips from inside of tube.

4-Bond web as per Dwg D3582 & QSI 015

A/R 241 Sike Flex

Batch:

M107804

Exp Date:

8-10-1

5-Weld x-bolt spacers(D2973) as per Dwg D3582 section B-B.

A/R AL ROD

Batch:

M107877 BE 08/05/21

6-Grind welds flush

SL 8-5-21

8-5-14

Tools: E

18.0

QC10

VISUAL INSPECTION OF GROUND WELDS



Comment: VISUAL INSPECTION OF GROUND WELDS

8 08/05/22 (X)

19.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

8 08/05/22 (X)

20.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

START TIME:

3:20

OVEN TEMPERATURE:

320°

FINISH TIME:

3:50

M107892

FL 08/05/28 (P)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Date: Friday, 02/05/2008 10:45:47 AM
User: Julie Lecocq

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BK117 SKIDTUBE ASSEMBLY

Job Number: 38985A

Part Number: D117762041

Job Number:



Seq. #:

Machine Or Operation:

Description :

21.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



HP



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

08-06-02

(X)

22.0

ALS41032130

Insert



Comment: Qty.: 36.0000 Each(s)/Unit Total : 36.0000 Each(s)

Insert

Batch: M1105855

* JH

23.0

ALS4428165

Inserts



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Inserts

batch M6989

***same as ALS7-428-165 QSI 0017 ***

JH

24.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Install Wearplate & Ground Wire inserts as per Dwg D3582.

JH 08-06-02

(X)

25.0

D2965

Cap, 105 Skidtube



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Cap

Batch: ~~1338431~~ 1339630

JH

*

26.0

D35083

Wearplate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

WEARPLATE

Batch: 1338431

JH

27.0

D35089

Wearplate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

WEARPLATE

Batch: B30417

JH

08-06-02

(X)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 02/05/2008 10:45:47 AM
User: Julie Lecocq

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BK117 SKIDTUBE ASSEMBLY

Job Number: 38985A

Part Number: D117762041

Job Number:



Seq. #:

Machine Or Operation:

Description :

28.0

D350811

Wearplate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Batch: 1336415

WEARPLATE

JSJ

29.0

D350813

Wearplate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

WEARPLATE

Batch: 1336416

JSJ

30.0

D35583

Gasket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

GASKET

Batch: 1338613

JSJ

31.0

D35589

Gasket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

GASKET

Batch: 1336420

JSJ

32.0

D355811

Gasket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

GASKET

Batch: 1336419

JSJ

33.0

D355813

Gasket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

GASKET

Batch: 1336418

JSJ

34.0

AN3C4A

BOLT



Comment: Qty.: 28.0000 Each(s)/Unit Total : 28.0000 Each(s)

BOLT

Batch: M 108161

JSJ

08-06-02

(X2)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 02/05/2008 10:45:47 AM
User: Julie Lecocq

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BK117 SKIDTUBE ASSEMBLY

Job Number: 38985A

Part Number: D117762041

Job Number:



Seq. #:

Machine Or Operation:

Description :

35.0

AN3C5A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Bolt

Batch: M1107737

HL

36.0

AN44A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Bolt

batch M1106918

HL

37.0

AN960C10L

washer



Comment: Qty.: 28.0000 Each(s)/Unit Total : 28.0000 Each(s)

washer

Batch: M1108077

HL

38.0

AN960JD10L

Washer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Washer

batch M104885

HL

39.0

AN960JD416L

Washer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Washer

batch M107008

HL

40.0

D3492049

Plug Assembly



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

PLUG ASSEMBLY

batch B337288

HL

41.0

D3492051

Plug Assembly



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

PLUG ASSEMBLY

batch B337289

HL

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BK117 SKIDTUBE ASSEMBLY

Job Number: 38985A

Part Number: D117762041

Job Number:



Seq. #:

Machine Or Operation:

Description :

42.0

D3492053

Plug Assembly



Comment: Qty.: 6.0000 Each(s)/Unit Total : 6.0000 Each(s)

PLUG ASSEMBLY

batch: B39017

HL

43.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

et-Inspect for Foreign objects

2-Install Aft cap as per Dwg D3582, Detail "C"

A/R 241 Sika Flex Batch: M107804

Exp Date: 08/10

3-Install Wearplates as per Dwg D3582,

Note: Install Bolt and washer on Ground Wire inserts on top of tube see section D-D of dwg D3582

*****Do not install bolts where indicated on Dwg(Note #6)*****

A/R 241 Sika Flex Batch: M107804

Exp Date: 08/10

4-Wing Walk as per Dwg D3043 and QSI 005 4.4

M107892

HL 08.06.02 (x1)

44.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 080602 (x1)

45.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D117-762-041

Location: _____

PPP Rev: _____

PPN 38985 *P-8/26* (1)

46.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

D0810626

Job Completion



mf 08-06-26

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

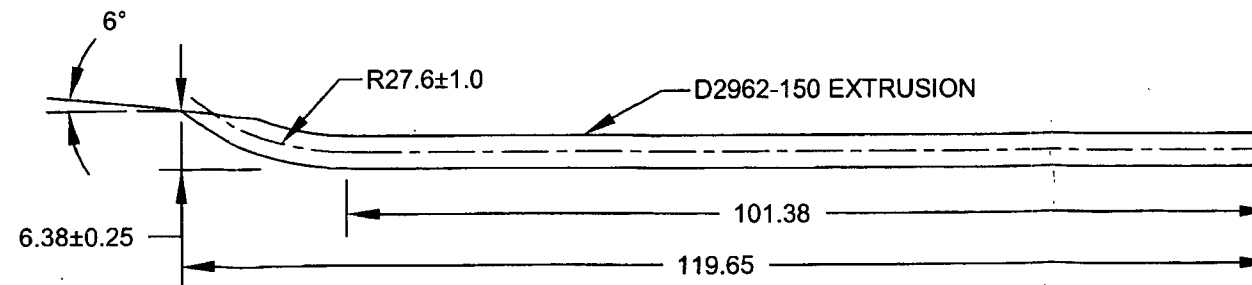
NOTE: Date & initial all entries

PARTS LIST FOR D3582-041 SKIDTUBE ASSEMBLY

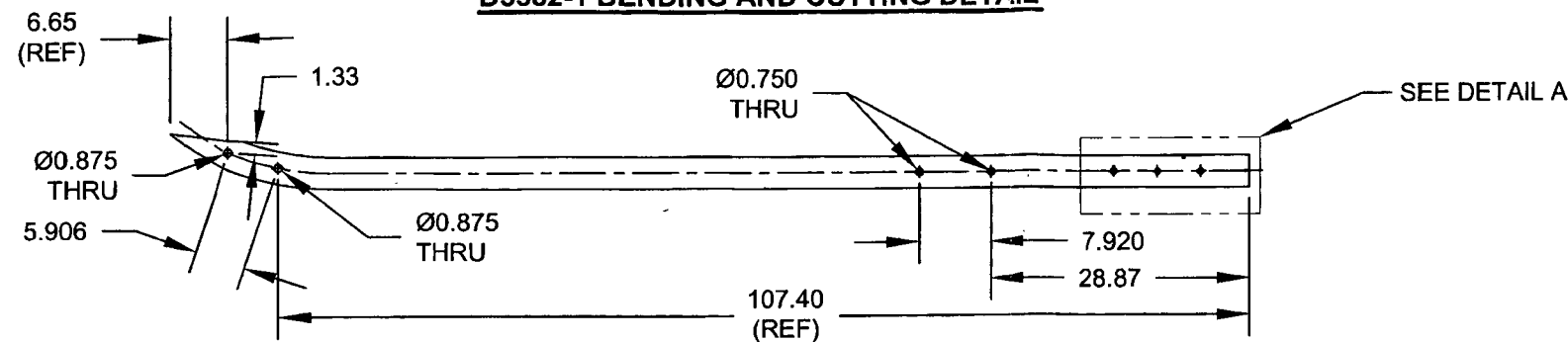
Qty	Part Number	Description
X	D3582-041	SKIDTUBE ASSEMBLY
1	D2962-150	EXTRUSION
1	D2964	CAP
1	D2965	CAP
1	D2971	CROSS BOLT SPACER
2	D2973	CROSS BOLT SPACER
2	D3492-049	PLUG ASSEMBLY
2	D3492-051	PLUG ASSEMBLY
6	D3492-053	PLUG ASSEMBLY
1	D3508-3	WEARPLATE
1	D3508-9	WEARPLATE
1	D3508-11	WEARPLATE
1	D3508-13	WEARPLATE
1	D3558-3	GASKET
1	D3558-9	GASKET
1	D3558-11	GASKET
1	D3558-13	GASKET
1	D3584-1	WEB
3	D3662-1	CROSS BOLT SPACER
1	D3662-3	CROSS BOLT SPACER
36	AELS-1032-130	INSERT
2	ALS7-428-165	INSERT
28	AN3C4A	BOLT
2	AN3-5A	BOLT
2	AN4-4A	BOLT
28	AN960C10L	WASHER
2	AN960JD10L	WASHER
2	AN960JD416L	WASHER

GENERAL NOTES:

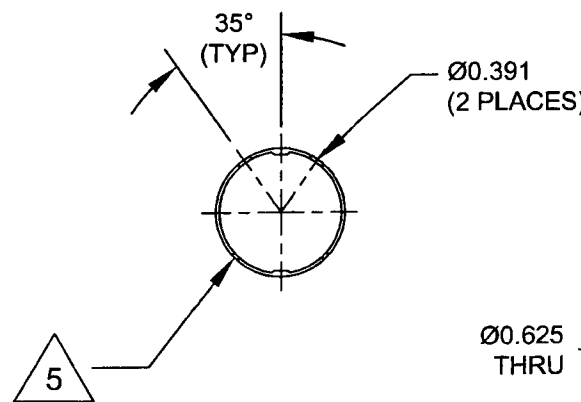
- ALL DIMENSIONS ARE IN INCHES
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- WELDING TO BE DONE PER DART QSI 004.
- INSERT D3584-1 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015 AFTER BENDING.
- USE DART DRILL TEMPLATE DT8900 TO LOCATE AND DRILL $\varnothing 0.297$ HOLES (36 PLACES) FOR WEARSHOE INSERTS. INSTALL AELS-1032-130 PER SECTION G-G (36 PLACES) AFTER FINISH. SEAL WEARPLATE BOLTS WITH SIKAFLEX-241/-291.
- DO NOT INSTALL AN3C4A BOLTS AND AN960C10L WASHERS IN INDICATED LOCATIONS.
- FINISH:
 - CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSERTING D3584-1 WEB.
 - POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3.
 - ANTI-SKID PAINT AS INDICATED TO 1.00 ABOVE CENTER LINE PER DART QSI 005 4.4



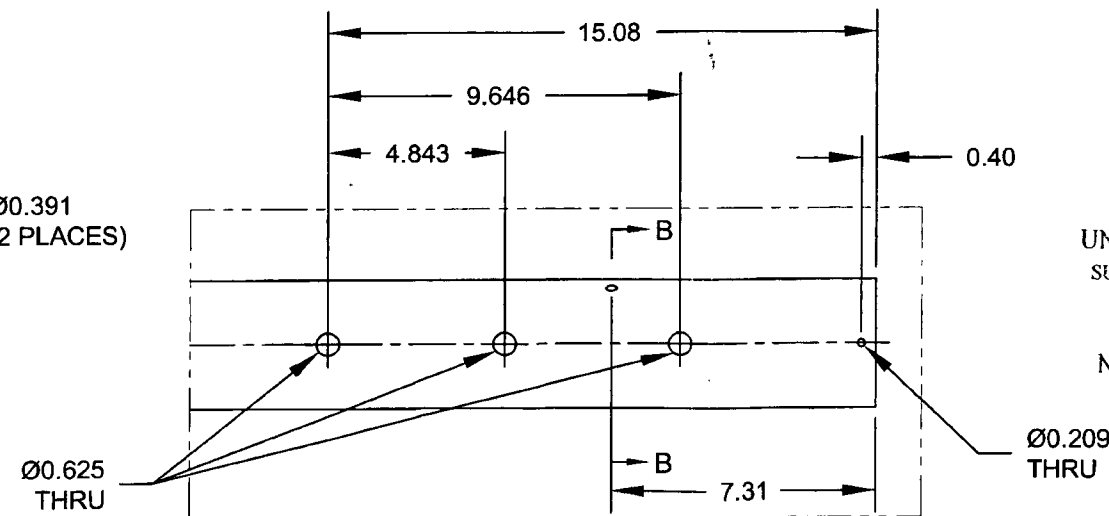
D3582-1 BENDING AND CUTTING DETAIL



D3582-1 DRILLING DETAIL



SECTION B-B
SCALE 1:5



DETAIL A
SCALE 1:5

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A	NEW ISSUE	PH	07.06.08
REV.	DESCRIPTION	BY	DATE
DESIGN	PA	DART AEROSPACE USA, INC PORT HADLOCK, WA	
DRAWN	PA		
CHECKED	PA	DRAWING NO.	REV. A
MFG. APPR.	PA	D3582	SHEET 1 OF 2
APPROVED	PA	TITLE	SCALE
DE APPR.	PA	BK 117 SKIDTUBE ASSEMBLY	1:20
DATE	07.06.08	COPYRIGHT © 2007 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC	

8

7

6

5

4

3

2

1

D2964 CAP
(GRIND FLUSH)

DETAIL C
SCALE 1:10

D2971 SPACER

AFTER FINISH
INSTALL,
D3492-049
PLUG ASSEMBLY
(2 PLACES)

SECTION D-D
SCALE 3:10

AFTER FINISH
INSTALL,
D3492-051
PLUG ASSEMBLY
(2 PLACES)

SECTION E-E
SCALE 3:10

D3662-3 SPACER

SECTION D-D NOTES

AFTER BENDING AND DRILLING ASSEMBLY
PERFORM THE FOLLOWING:

1. CHAMFER HOLE 0.030 x 45°
2. INSERT D2971 SPACER
3. WELD INTO PLACE AND GRIND FLUSH
4. PASS Ø0.750 DRILL TO REMOVE SPILL OVER
5. AFTER FINISH, INSTALL D3492-049 PLUG ASSEMBLY (2 PLACES)

SECTION E-E NOTES

AFTER BENDING AND DRILLING ASSEMBLY
PERFORM THE FOLLOWING:

1. CHAMFER HOLE 0.030 x 45°
2. INSERT D3662-3 SPACER
3. WELD INTO PLACE AND GRIND FLUSH
4. PASS Ø0.672 DRILL TO REMOVE SPILL OVER
5. AFTER FINISH, INSTALL D3492-051 PLUG ASSEMBLY (2 PLACES)

D2973 SPACER
(2 PLACES)

SECTION F-F
SCALE 3:10

SECTION F-F NOTES

AFTER BENDING AND DRILLING ASSEMBLY
PERFORM THE FOLLOWING:

1. CHAMFER HOLE 0.030 x 45°
2. INSERT D2973 SPACER (2 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. PASS Ø0.625 DRILL TO REMOVE SPILL OVER

D3584-1 WEB (REF)

D3662-1 SPACER
(3 PLACES)

AFTER FINISH, INSTALL
AELS-1032-130
INSERT (36 PLACES)

AN3C4A BOLT (1)
AN960C10L WASHER (1)
(28 PLACES)

SECTION G-G
SCALE 3:10

SECTION G-G NOTES

AFTER BENDING AND DRILLING ASSEMBLY
PERFORM THE FOLLOWING:

1. CHAMFER HOLE 0.030 x 45°
2. INSERT D3662-1 SPACER (3 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. PASS Ø0.515 DRILL TO REMOVE SPILL OVER
5. AFTER FINISH, INSTALL D3492-053 PLUG ASSEMBLY (6 PLACES)

AFTER FINISH, INSTALL
ALS7-428-165 INSERT (1)
AN4-4A BOLT (1)
AN960JD416L WASHER (1)
(2 PLACES)

AFTER FINISH
INSTALL,
D3492-053
PLUG ASSEMBLY
(6 PLACES)

DETAIL C

D3558-9
D3508-9

NO BOLTS AT
THESE LOCATIONS

D3558-3

D3558-11

D3508-3

D3508-11

DETAIL H

D3558-13

D3508-13

NO BOLTS AT
THESE LOCATIONS

D3582-041 ASSEMBLY DETAIL

BLACK ANTI-SKID

8.0

16.2

58.4

16.0

5.0

0.8

BLACK ANTI-SKID (TYP)

D3582-041 BLACK ANTI-SKID DETAIL

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D3584-1 WEB
(REF)

SEAL WITH
SIKAFLEX -241/-291

D2965 CAP

DETAIL H
SCALE 1:5

AN3-5A BOLT (1)
AN960JD10L WASHER (1)
(2 PLACES)

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07.11.22

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	PH	PORT HADLOCK, WA	
CHECKED	PH	DRAWING NO.	REV. A
MFG. APPR.	PH	D3582	SHEET 2 OF 2
APPROVED	PH	TITLE	SCALE
DE APPR.	PH	BK 117 SKIDTUBE ASSEMBLY	1:20
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NO. 148

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barday Elliot
Job number: 38388A
Part number: D117 762 041
Description: Skid tube BK117
Welding Process: Tig ☒ Mig ☐
Base material: Aluminium
Current: AC ☒ DC ☐

TEST REQUIREMENTS AND RESULTS

Visual: pass ☒ fail ☐
Penetration: pass ☒ fail ☐

UNACCEPTABLE

Cracks: pass ☒ fail ☐
Undercut: pass ☒ fail ☐
Pin holes: pass ☒ fail ☐
Overlap (cold lap): pass ☒ fail ☐
Porosity (surface): pass ☒ fail ☐
Coloration: pass ☒ fail ☐

Qualifier Ped. Duval. Date of Test Coupon 08-04-14

Welder Barday Elliot Date of Test Coupon 08-04-14

The above named individual is qualified in accordance with AWS D17.1.2001 to weld

